DOCUMENT RESUME

ED 130 953 SO 009 532

AUTHOR	Wentworth, Donald R.; Hansen, W. Lee
TITLE	Perspectives on Economic Education: A Report on Conference Proceedings.
INSTITUTION	Joint Council on Economic Education, New York, N.Y.; National Council for the Social Studies, Washington, D.C.; Social Science Education Consortium, Inc., Boulder, Colo.
SPONS AGENCY	National Science Foundation, Washington, D.C.
PUB DATE	Sep 76
NOTE	34p.; Proceedings of the National Conference on Needed Research and Development in Precollege Economic Education (New Orleans, Louisiana, February 12-14, 1976)
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Business Education; Class Activities; Conference Reports; Consumer Education; *Curriculum Development; Data Analysis; Economic Change; *Economic Education; Economic Factors; *Economics; Educational Finance; *Educational Needs; Elementary Secondary Education; Information Dissemination; Meetings; *Research Needs; Skill Development; Teacher Education

ABSTRACT

Presented are a synthesis and analysis of proceedings from the conference which reassessed precollege needs in economic education. Two major questions addressed by the group are identified. First, is there sufficient research information to guide precollege economic education development? If not, what areas should be investigated more completely? Second, are there adequate curriculum materials? If not, what type should be developed? The general conclusion of the conference was that precollege economic education would benefit from increased research and development of a coordinated nature. The following six recommendations were made: (1) an operational definition of economic literacy must be developed; (2) a number of new instruments must be created at all grade levels to test the level of student understanding of and attitudes toward economics; (3) research is needed on why people do or do not wish to learn economics; (4) a more extensive program of materials development should be initiated; (5) teacher inservice programs must be continued and improved; and (6) the services of the Joint Council on Economic Education should be fully utilized. (Author/DB)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
** reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED130953

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PERSPECTIVES ON ECONOMIC EDUCATION:
A report on conference proceedings

SP009532

A report on the National Conference on Needed Research and Development in Precollege Economic Education held February 12-14, 1976 in New Orleans, Louisiana and funded by the National Science Foundation.

Donald R. Wentworth and W. Lee Hansen

Joint Council on Economic Education
National Council for the Social Studies
Social Science Education Consortium, Inc.

September, 1976

CONTENTS

		Page
Preface		5
Conference Advisory Committee		7
I.	Background and Purposes	9
II.	Summary of Conference Papers	13
III.	Research and Development Needs: A Summary	15
IV.	The Process of Development	17
V.	An Agenda for Future Curriculum Development	22
VI.	Summary	29
VII.	Conference Participant Recommendations for Precollege Economic Education	29

PREFACE

This monograph is the editors' synthesis and analysis of the proceedings of the National Conference on Needed Research and Development in Precollege Economic Education conducted February 11-14, 1976 in New Orleans, Louisiana. The conference was funded by a grant from the National Science Foundation and endorsed by the American Economic Association (AEA) Committee on Economic Education, the Association for Supervision and Curriculum Development (ASCD), The Joint Council on Economic Education (JCEE), the National Council for the Social Studies (NCSS), and the Social Science Education Consortium (SSEC).

We would like to express our appreciation to all the organizations and individuals who helped make the conference possible. This list includes the organizations which endorsed the conference, the advisory committee who guided our work, the participants who made the conference a stimulating intellectual experience, and the National Science Foundation for granting the funds needed to conduct the conference and publish the proceedings.

Special acknowledgement is due to selected individuals who helped with different phases of this project. Dr. Charles Fishbaugh, Professor of Economics at the University of New Orleans, was an excellent conference coordinator. Kathy Poole, Administrative Assistant, Center for Economic Education, Pacific Lutheran University, assumed a large responsibility in preparing the grant request, making preparations for the conference, and producing the conference proceedings. Sharryl Hawke served as editor for this publication. Without the services, professional skill, and judgment of these people, it is unlikely that the conference and the publications would have become a reality. We deeply appreciate their help.

The full proceedings of the conference are reported in the publication *Perspectives on Economic Education*. This book will be available after January 1, 1977 from the JCEE (1212 Avenue of the Americas, New York, NY 10036), the SSEC (855 Broadway, Boulder, CO 80302) or the NCSS (1515 Wilson Boulevard, Arlington, VA 22209).

Finally, as editors, we wish to acknowledge that although many people helped us with this project, any errors are our sole responsibility. In like manner, it should be understood that the views and professional judgments expressed in this publication are those of the authors and are not the official position of NSF or any of the endorsing organizations.

Donald R. Wentworth, Pacific Lutheran University
W. Lee Hansen, University of Wisconsin, Madison

CONFERENCE ADVISORY COMMITTEE

Elisabeth Allison
Associate Professor Economics
Harvard University
Cambridge, Massachusetts

George G. Dawson
Acting Dean
Empire State College, State University of New York
Old Westbury, New York

Brian J. Larkin
Executive Director
National Council for the Social Studies
Washington, D.C.

Irving Morrissett
Executive Director
Social Science Education Consortium, Inc.
Boulder, Colorado

Dennis O'Toole
Executive Vice President
Virginia Council on Economic Education
Virginia Commonwealth University
Richmond, Virginia

Phillip Saunders
Association Dean of the College of Arts and Sciences
and Professor of Economics
Indiana University
Bloomington, Indiana

S. Stowell Symmes
Director of Curriculum
Joint Council on Economic Education
New York, New York

Perspectives on Economic Education: A Report on Conference Proceedings

I. BACKGROUND AND PURPOSES

During the 1970s the attention of the American people and their leaders has focused sharply on problems of the economy. Rarely in recent history have people at all socioeconomic levels witnessed the dramatic influence of economic actions on both personal life-styles and national objectives. The economy has suffered from the deepest recession in almost 40 years, experienced the sharpest inflationary surge in memory, undergone its only peacetime experience with wage and price controls, been subjected to the shock of the energy crisis, and left citizens questioning the effectiveness of government in solving many social and economic problems. For American citizens trying to understand what is happening in the economy and to evaluate the varied proposals for remedying economic problems, the period has been tramatic.

The trauma of Americans trying to deal with economic issues has been confounded by their fragmentary understanding of how the economic system works. Few people have enough knowledge of economics to give them confidence that the system can function more effectively. As a result, many people, convinced that economics is an unfathomable subject, have focused their attention on other issues.

Recent economic events have also forced economists to examine many of the discipline's basic assumptions. Long accepted conclusions about the causes of inflation, the acceptable level of unemployment, the role of economic growth, the sovereignty of the consumer, and the performance of the economic system are all being examined, challenged, and reevaluated by economists. Differing schools of thought are emerging and challenging conventional wisdoms of the recent past.

This environment of bewilderment and uncertainty indicates a need for educators and economists to assess the field of economic education. Economic educators have a major responsibility to inform the general public on economic affairs and to help people develop the confidence, knowledge, and skills to understand economic issues. Because this responsibility cannot be met with outdated knowledge, materials, and attitudes, professionals must take into account new knowledge and developments in economics, useful experiences gained from past work in economic education, and valuable insights from learning theory. If economic education is to meet the challenge of current events, the profession must reexamine its objectives and chart new directions for future work.

The 1961 Task Force Report and Its Aftermath

Most of the objectives, philosophy, and direction of the economic education movement stem from the *1961 Task Force Report on Economic Education* which was developed and disseminated through the cooperation of the Committee for Economic Development, the American Economics Association, and the Joint Council on Economic Education. The pathbreaking *Task Force Report* gave focus to precollege economic education by identifying a conceptual foundation for the development of curriculum materials, training programs for teachers, dissemination efforts, and evaluative research. A great flurry of activity resulted, and this has led to a substantial expansion of the role of economic education in the nation's schools. While progress has been made, much remains to be done. For a variety of reasons, only limited success can be claimed in raising the public's level of economic literacy, particularly among young people who are most likely to be touched by economic developments.

Several obstacles prevented greater success. First, no substantial investment has been made in developing and implementing economic education materials. While many teaching materials have been developed, few have had widespread implementation. Efforts to introduce more economics into the curriculum have faced stiff competition from newly developed curriculum materials in entrenched subjects and from the introduction of additional subjects into an already overcrowded curriculum.

This last competitive force proved important because curriculum development projects in economics received almost no funding by the federal government. While millions of dollars were spent to develop new curricula in anthropology, political science, sociology, and geography, little funding was committed to improving economic curriculum materials. Why economics was not funded by the National Science Foundation (the major contributor to curriculum development in the 1950s, 60s, and 70s) is not known. However, the omission left the profession without a well-funded curriculum project to serve as a model and rallying point for its educational tasks. On the other hand, mathematics, natural science, and other social science disciplines have all been tremendously influenced by the model curricula developed with National Science Foundation support.

A second obstacle has been the failure of teacher education programs to develop economic education competencies in large numbers of beginning teachers. Economic education simply has not been given the same type of emphasis more established disciplines like history and geography have enjoyed, in part because social science educators have not been knowledgeable about economics. As a result, few beginning teachers are equipped to teach economics. Economic education has been forced to try to "convert" experienced teachers to value economic instruction. This is an extremely difficult task of professional socialization.

Inadequate attention to raising the public's general level of economic understanding has been a third obstacle. We know that young people gain much of their knowledge outside school. As long as the level of general economic

understanding remains low, students receive little reinforcement in the "world" for what they learn in school. The only substantial effort to correct this situation occurred in the past two years when the business community, finding itself under heavy attack, initiated an extensive educational effort. While these private efforts have great potential for increasing economic understanding, they are often viewed as biased and self-serving. Moreover, such efforts by their nature are of short duration. This suggests that we need to develop a long-range program of economic education which will reach not only younger Americans attending school but also the larger portion of the population which has already completed school.

Given these problems and circumstances, there appeared to be abundant reasons for holding a national conference to reassess the research and development needs in precollege economic education. Considerable time had passed since publication of the *1961 Task Force Report*. While progress had been made in precollege economic education since then, many tasks still seemed to need attention. Appropriate circumstances existed for appraising the present usefulness of the *Task Force Report* and putting into perspective the results of the economic education development activities growing out of that document. More important, if successful, the conference would serve as a guide and stimulus to needed activities in the future.

These reasons led to the planning of the Conference on Needed Research and Development in Precollege Economic Education.

Conference Goals and Objectives

The primary goal of this conference was

> *. . . to provide an opportunity for professionals in economics, economic education, and education to assess the state of precollege economic education, make recommendations for needed research and development, and stimulate educational activities to improve economic understanding among all citizens.*

This goal was met by accomplishing three objectives.

Objective 1. *To provide a forum for a group of interested professionals to share ideas about the state of precollege economic education.*

This conference drew together economists, economic educators, social scientists, and educators to share broad concerns, review work already accomplished, and generate fresh ideas and new approaches in this field. It provided an opportunity to examine parallel programs pursued by different individuals and groups and to develop strategies for ensuring greater complementarity in these efforts.

Objective 2. *To commission professional economists and educators to assess the needs and priorities in economic education and to present papers on their findings at the conference.*

To focus conference activities, a number of economists and educators were commissioned to prepare papers on a variety of topics relating to economic education. Other participants were asked to prepare written responses to these papers. All papers and responses are included in a conference proceedings book, *Perspectives on Economic Education* (see Preface for ordering information). The papers presented a series of recommendations to conference participants. In follow-up discussion sessions, participants studied the recommendations and assessed the priority level of each. Because the conference participants represented a unique blend of talents, fields of expertise, and levels of past involvement in economic education, their interaction helped sharpen the sense of priorities. Our summary of these recommendations and their priorities is presented at the end of this monograph.

Objective 3. *To circulate the conference proceedings as widely as possible to the interested public.*

The conclusions and recommendations of the conference can serve as a stimulus and guide to future research and curriculum development in precollege economic education at national, state, local, and individual levels. The conclusions of the conference are being shared with people attending national and regional conferences in economics, economic education, and education. Copies of the summary materials and conference papers are available to those expressing an interest. Professionals receiving this information will, we hope, help strengthen those areas in economic education deemed adequate by the conference participants and begin filling the identified gaps.

Guiding Questions of the Conference

The conference was designed to examine the following questions:

- What is the current state of the science of economics? What are the issues and problems that constitute the "cutting edge" of thought in the field? What are major objections to the directions and work that mainstream economists are pursuing?
- What does available research suggest as the most effective directions for developing future economic education programs? What additional research is needed to fill gaps in our knowledge about the effectiveness of economic education programs?
- How effective are current teaching materials and strategies, teacher training programs, and curriculum implementation efforts? What needs exist in all these areas?
- What priority activities in both research and development should be undertaken to stimulate and give new direction to economic education in the late 1970s and the 1980s?

Each of these questions was examined separately in the conference papers and following responses. The next section of this monograph presents summaries of the conference papers.

II. SUMMARY OF CONFERENCE PAPERS

Eight papers, each focusing on a major aspect of precollege economic education, were presented at the conference. Based on discussions during the conference, Lawrence Senesh and Helen Ladd were asked to prepare papers on two additional topics. The full texts of these papers, plus the prepared comments of respondents to the papers and the reactions of three precollege teachers attending the conference, are presented in the conference proceedings book, *Perspectives on Economic Education*. Summaries of the ten papers are presented here.

The opening paper by Leonid Hurwicz reviews recent advances in economic thinking on a variety of topics—macroeconomics, empiricism versus theory, the concept of equilibrium, market imperfections, socialist systems, and comparative economic systems. He indicates how economists are wrestling with these topics and striving to advance our knowledge. Although most of the work mentioned in the paper stands at the frontier, Hurwicz believes the motivation for this work is rooted in our inability to provide satisfactory explanations for many current economic problems. He also sees evidence that the gap between economic phenomena and the development of new, improved explanations of these phenomena has narrowed greatly in recent years.

Lawrence Senesh explains how an economic educator can serve as a "translator" between the professional economist and the classroom teacher by showing the relationship of the developments discussed by Hurwicz and economics instruction in the schools. Senesh believes that the role of these translators is essential in closing the gap between the frontier of economic knowledge and economic instruction in the classroom.

In his paper, Lee Hansen assesses the current state of economic literacy in this country. He points out that this task is hampered not only by the lack of any agreed upon definition of economic literacy but also by the absence of effective instruments to measure economic literacy. Evidence of the low level of economic literacy among the nations' citizenry as indicated by public opinion polls is summarized in the paper. Hansen believes the low level of literacy results less from the inadequacy of schools to supply economic knowledge and understanding than from the lack of public demand for effectual economic education. He explains that economic education, with its heavy emphasis on what might be called "citizenship" economics, offers individuals relatively few personal benefits even though the social (external) benefits may be substantial. The paper concludes with a brief preview of a new report on the Master Curriculum Project of the Joint Council on Economic Education which tries to pinpoint the basic economic concepts and modes of thinking which are essential in a definition of economic literacy.

George Dawson surveys the rapidly growing but still limited amount of research on economic education to determine what common findings emerge.

He begins by classifying the research into three categories—fact-finding research, studies relying upon statistical analysis, and more complex studies demonstrating greater statistical rigor and/or manipulation of the learning environment. Using this classification scheme, he reviews the existing studies at the elementary and the secondary school levels. The many and diverse conclusions drawn from his comprehensive review provide a starting point for anyone interested in beginning research in this area or learning what is known.

The special needs of particular population groups are addressed in the next two papers. James Banks offers a detailed analysis of the problems of ethnic groups, along with a demonstration of how existing economic education curricula fail to consider the special characteristics of these groups. He proposes a new approach to economic education for ethnic groups, one that emphasizes a multiethnic, interdisciplinary perspective. Such an approach offers, he believes, the only effective means of facilitating the more rapid development of ethnic groups. In Banks' view such development is necessary if ethnic groups are to fully participate in the economic and political system.

Helen Ladd addresses the needs of another important group, namely, female students who typically demonstrate less interest in and, apparently, less aptitude for economics. She reviews the very limited literature on the subject and concludes that observed differences in interest and achievement appear to be greater at the secondary than the primary level and are largely culturally determined. She offers a variety of recommendations for not only finding out more about male-female differences but also for trying to reduce, if not eliminate, these differences.

The next two papers focus on two components of effective economic education—curriculum materials and teacher training. James Davis examines the current state of curriculum materials. Reviewing previous assessments of such materials, he finds that these assessments have concentrated largely on the materials' presentation of economic content with little or no attention given to pedagogical dimensions. Davis then presents the findings of his evaluation of more recent materials, concluding that while recent materials continue to score well on economic content they remain deficient in pedagogy. He also finds that much of the printed material is not field-tested before being made available for classroom use. Davis offers an extensive list of recommendations for improving and augmenting the content of these materials and for insuring that greater attention is given to the pedagogical development of new economic education materials.

Teacher training in economic education is examined by James Mackey, Allen Glenn, and Darrell Lewis. They conclude that over the last decade significant advances have been made in determining what can and should be taught and in developing improved materials. However, they express keen disappointment over the continuing and widespread lack of adequate teacher preparation in economics and economic education. They review what is known about the effectiveness of teacher training programs and use this information as the basis for their recommendations to improve teacher training in economics.

John Soper's paper offers a review of approaches to evaluation in economic education. He argues that we must focus on the impact of economic education on student achievement and give greater attention to establishing the magnitude of these effects. After discussing the choice of evaluation instruments and research design, Soper proposes a general model of evaluation for economic educators and teachers seeking to evaluate their own programs or those of others. Soper illustrates the usefulness of this framework in evaluating a secondary school program based on the World of Work Economic Education Curriculum.

The last paper by James Becker and Gerald Marker concerns the diffusion and implementation of economic education programs. The paper begins by reviewing the difficulties of diffusing and implementing economic education materials. Although strong efforts to improve diffusion and implementation have been made, particularly by the Joint Council on Economic Education, practicing teachers continue to be largely ignorant of new developments in economic education. They conclude with a variety of suggestions for improving the diffusion-implementation process.

Considered together, the ten papers provide a comprehensive assessment of the current status of and needs for research and developmental efforts in precollege economic education. While authors of the papers were not required to assign priorities to their recommendations, some did so. The prepared responses and small group discussions which followed each paper helped to further sharpen participants' sense of priorities among the recommendations. In the next section of this monograph we will discuss what we, as conference directors, believe were the most important recommendations to emerge from the conference interaction.

III. RESEARCH AND DEVELOPMENT NEEDS: A SUMMARY

The conference participants concluded that a number of activities should be undertaken to strengthen economic education. These activities should involve the development of needed research and evaluation instruments, survey and investigative research, curriculum development, improvement in teacher training, broadening of evaluation procedures, and strengthening of the field's implementation network. To a cynic, it would appear that conference participants suggested improvement for every aspect of the field. In fact, that assessment accurately reflects the conference recommendations. While the participants acknowledged some areas to be stronger than others, they believed all aspects of economics education could be improved.

The conclusions listed below reflect the major recommendations of the conference as summarized by the conference directors. A more comprehensive list of recommendations drawn from the papers, comments, and small group discussions is presented in Section VII of this monograph.

Recommendation 1. *An operational definition of economic literacy must be developed to provide clear objectives to economic educators. The present confusion about what an economically literate person is and how that person behaves makes it difficult to decide how best to increase citizen knowledge of economics and skill at dealing with economic issues. Without a definition of economic literacy and operational measures of teaching for economic literacy, economic education will flounder.*

Recommendation 2. *A number of updated and new instruments are needed at all grade levels to test the level of student understanding of economics, student attitudes, and student values regarding economic decision making. Similar instruments are needed for the adult population. These instruments are required to establish a baseline of information from which to start programs and specify outcomes.*

Recommendation 3. *Research is needed on the use of economic education materials in precollege classes and the determinants of demand for economic education. Why people do or do not wish to learn economics must be more clearly established. This investigation should explore the socialization of teachers and citizens toward economic issues, feelings of efficacy in economic affairs, commitment to establish curriculum programs, and self-interest attitudes. In addition, it should identify what economic information students, teachers, and the public believe is most valuable and necessary.*

Recommendation 4. *A more extensive program of materials development in economic education should be initiated. Good programs must be improved, updated, and improved again. Inadequate and inaccurate materials should be identified and forced off the market. At the junior high school level materials complementary to other junior high social studies programs should be developed. Materials in the "neglected content areas" must be produced, and all materials must portray more accurately the roles of ethnic minorities and women in the economic system. Materials developed by one or more national curriculum development projects could reflect these desired changes and also serve as models for other, less ambitious economic education programs. These model programs should be built on the designs of the best existing programs and be flexible enough to meet local needs. All project materials should include individualized learning products, thorough evaluation compo-*

nents for testing effectiveness, and mechanisms to elicit student-teacher feedback on learning progress.

Recommendation 5. *Teacher inservice education programs must be continued and improved. All model curriculum development programs must include teacher training components. Accompanying workshop programs require a blend of instruction in content and methodology that is based on the teacher competency model of teacher education.*

Recommendation 6. *The dissemination and diffusion network of economic education provided through the Joint Council on Economic Education and its Affiliated Centers and State Councils should be recognized as a major strength in the economic education field. It should be fully utilized to gather research results, stimulate development ideas, promote training skills, and disseminate new educational programs. The network established by the Joint Council should be expanded to include other interested professionals, such as members of the National Council for the Social Studies, the Association for Curriculum Development and Supervison, and the Social Science Education Consortium. Increased cooperation among these complementary organizations could help generate greater professional credibility, interest, and use of economic education materials.*

As conference directors, we felt a responsibility to identify a set of priorities from the conference recommendations and discussions. Our sense of responsibility was tempered by the realization that translating the varied recommendations from the formal papers, responses, and small group discussions into a well-organized list of priorities was no easy task.

Originally, we hoped that after each group session the participants in small group discussions would rank the recommendations presented by speakers and respondents in order of importance, feasibility, and cost. Our expectations were not fulfilled. While some sessions did produce such rankings, in most instances the discussions were far-ranging and participants found it difficult to make fully informed rankings. In a few cases discussion leaders provided their interpretation of the groups' rankings.

The conclusions and recommendation offered below are based on the information we received from discussion session leaders and our own sense of the priorities emerging from the sessions we personally attended.

IV. THE PROCESS OF DEVELOPMENT

Our ordering of priorities flows from our perspective on the research and development process. This perspective emerged from our experiences in the

conference planning, listening to the conference papers, and participating in the group discussions. It was reinforced by our reading and discussions with professionals concerned with economic education.

We see the research and development phases of curriculum building as inextricably linked, not as separate activities. Most professionals consider the research related to developmental activity as "applied" research rather than "basic" research because it considers questions which stem from the needs of the developmental process. In our view, this perspective is too restrictive. Research must serve two purposes. It must provide information that helps a project staff understand its task, but it must also yield information which advances knowledge of the education process.

Our perspective recognizes the need to combine research and development to insure that significant increases in learning result from the new materials. It also recognizes the reality that adequate funds for research will and must come through development projects. By tying research to development and by requiring combined funding for them, the effectiveness of the materials will be enhanced and our stock of new knowledge will be expanded.

Our perspective also leads us to view development as a process consisting of a series of tasks. In our judgment the following tasks constitute the complete cycle of an effective curriculum development project.

Task 1. Fact-Finding Survey Before materials development begins, a survey of potential users should be completed. This type of survey would help answer questions such as: How widespread is the felt need to emphasize economic understanding? What materials are most needed? What grade levels and topics should be included? What new components or materials would teachers, administrators, students, and parents like to see added to presently available products?

Task 2. Predevelopment Research In addition to survey information, a compilation of pertinent information from completed research studies should be undertaken. This predevelopment research should encompass both theory and empirical work that might usefully guide a development project in economic education. It should also examine the development experiences of other curriculum projects to determine which actions to emulate and which to avoid.

Task 3. Development of Measures of Economic Literacy In this task the criterion-referenced objectives to be achieved through the materials' use should be determined. The objectives should be continuing ones which carry different levels of expectation for various age and grade levels of students and/or adults.

Task 4. Creation of Curriculum Materials In creating curriculum materials, original and effective ideas for introducing and teaching key ideas, skills, and attitudes must be generated. These ideas should then be translated

into usable materials and teaching strategies. All materials should be pilot-tested to determine their usability. Final revision of the materials and teaching strategies should be based on pilot-test results.

Task 5. Evaluation To evaluate the effectiveness of the materials generated, accurate and controlled information for analysis should be developed. Materials can then be field-tested, using the specified evaluation procedures. Data generated by the evaluation should be analyzed and results shared with the educational community. This procedure should not only provide information on that materials' effectiveness, but it should also advance knowledge in the general education field.

Task 6. Diffusion Once materials have been prepared and evaluated, educational leaders and teachers should be alerted to the availability of these materials. This can be done in a variety of ways including mailed brochures, personal calls, presentations at professional meetings, and promotion by commercial publishers.

Task 7. Installation To assure the uses of these materials in the classroom, a variety of installation techniques should be developed. These techniques could include inservice training for teachers, regional workshops for educational leaders, and the designation of "lighthouse" school districts that other districts can model in their implementation decisions.

The linkages among the various tasks in the research-development process are identified in Figure 1. The first column of boxes indicates the process's four goals: I. Development of Objectives and Assessment Devices, II. Development of Curriculum Materials and Approaches, III. Diffusion, and IV. Installation. The next column of boxes indicates needed Preactivity, namely fact-finding surveys and predevelopment research. Only after goals have been set and preactivities completed can Developmental Activity begin, as indicated by the third column of boxes. The final column of boxes, Postactivity, summarizes the evaluation procedures that are essential in every step.

Consider the identification and measurement of economic literacy (the first box in the third row of Figure 1). Accomplishing this task requires the specification of economic literacy, which might be thought of not as some given level of knowledge or achievement but rather as a continuum. As students progress through the grades, they would advance along that continuum, ultimately achieving minimal and perhaps even advanced literacy. This requires deciding what is meant by economic literacy and determining what kinds of knowledge and skills must be acquired by students as they progress through the various grade levels.

Two kinds of preactivity research facilitate the specification of economic literacy. One is fact-finding surveys, a type of market analysis to determine what kinds of knowledge reflect different degrees of economic literacy. Another is predevelopment research which require compiling what educational theorists have learned about literacy development and drawing on what researchers in other disciplines may have discovered about the construction of literacy

The Research-Development Process as Applied to a Curriculum Development Project

Goals of the Process	Preactivity	Developmental Activity	Postactivity
I. Development of Objectives and Assessment Devices	Fact-finding Survey Predevelopment Research Review of Educational Theory and Empirical Studies Review of Other Projects in Other Disciplines	Development of Literacy Measurement Instruments	Evaluation of Instruments
II. Development of Curriculum Materials and Approaches	Fact-finding Survey Predevelopment Research Review of Educational Theory and Empirical Studies Review of Other Development Projects in Other Disciplines	Development of Materials Pilot-test Materials Revise	Evaluation of Materials' Effectiveness in Reaching Objectives
III. Diffusion	Fact-finding Survey Predevelopment Research Review of Educational Theory on Diffusion Review of Other Projects' Successes	Publicize and Inform Teachers and Educators	Evaluation of Diffusion Effort
IV. Installation	Fact-finding Survey Predevelopment Research Review of Educational Theory on Teacher Training Review of Other Projects' Experiences and Successes	Teacher Training	Evaluation of Teacher Training

OUTCOMES

Acquisition of Learning	Sharing of Knowledge
Students Acquire Competencies in Economic Literacy	Researchers, Developers, and Users Acquire New Knowledge that Advances the Field of Education and Economic Education

FIGURE 1

measures. None of this activity involves basic, theoretical research in education; rather, it is background research that informs and provides a basis for further developmental efforts.

The next task involves the actual construction and testing of a measuring instrument. Designing the exact types, number, and form of the questions to be asked constitutes the major part of this task. The final step in specifying economic literacy is evaluating the effectiveness of the measuring instruments.

Determining the meaning of economic literacy and creating instruments for measuring it will provide essential information for constructing curriculum development projects. The information will also add to the general stock of knowledge in education, providing, of course, it is shared. To assure such sharing, this information should be written up in appropriate form and made available through publications, informal circulation, reference in ERIC, and deposit in various archives.

While we have used the development of economic literacy measures to illustrate the successive steps in the research-development process, the other tasks in the cycle would require a similar approach and lead to two broad outcomes. The eventual and cumulative result of the overall process is the acquisition of learning by students and the sharing of knowledge among researchers, developers, and users. The first of these provides a final outcome as it affects the ultimate beneficiaries; the second sets the stage for future efforts to affect the ultimate beneficiaries in the quest for improved economic literacy.

We believe that any development project, no matter how large or small its scale, must include all the tasks in this process. If one or more tasks are neglected, a project will have limited chances of successfully adding to student competencies in economics or in advancing knowledge that others can draw upon in doing future work. Numerous examples exist of curriculum projects in the 1960s and 1970s which spent thousands of dollars developing curriculum materials that are not now being used and which have not added appreciably to our knowledge of the education process. In most cases, the projects did not include a thoughtful research component, evaluation process, or installation strategy. These missing links in the development process created severe bottlenecks when it was found that teachers did not know about these materials, did not want them, did not have confidence in their effectiveness, or could not obtain them. When and if economic education goes through such a development process, it should avoid these bottlenecks by carefully building all of these tasks into its plans.

We also believe that all tasks in the process must be carried out, whether the budgeted levels of the projects are large or small. In some instances where project funding is limited, developers may have to undertake fact-finding and predevelopment research without compensation. In other instances, it may be possible to obtain financial support from publishers, especially for installation, diffusion, and evaluation tasks in the development process. Even when projects receive large amounts of funding, publishers should be encouraged to contrib-

ute to developmental work before they stand to profit financially from successful projects.

We strongly advocate a long-term time commitment for any project that is undertaken. Major changes in a field cannot take place if development must be completed in 12 months or less. Depending on their scope, projects should range from two and one-half years to five years duration. All project tasks should be identified on a time line before funding is received. Committed funding should support the process through its final task.

Finally, all projects should develop a close professional rapport with national organizations that could help accomplish their work. A link to all national organizations such as the Joint Council on Economic Education, the National Council for the Social Studies, the Social Science Education Consortium, the American Economic Association, and commercial publishers should begin early in the project and continue through its duration. This will assure greater knowledge and use of the materials after the projects are completed.

V. AN AGENDA FOR FUTURE CURRICULUM DEVELOPMENT

Now the difficult decisions must be made. If funds were to become available for research, development, and implementation of new precollege curriculum materials, how should the money be used? What projects should receive highest priority? What tasks are most effectively accomplished with limited funds? What activities require the largest amounts of resources? What is the optimal mix of project development and implementation activities? The following commentary reflects our professional judgment about how resources should be allocated for research and development in economic education during the next decade.

Alternative Budget Levels

The first step is to project several alternative levels of funding. Our projections are based on six examples of curriculum development projects: *Chemical Educational Materials Study, High School Geography Project, Sociological Resources for the Social Studies, Comparing Political Experiences, Economics in Society,* and *Unemployment Insurance Curriculum Development Project.* All projects except the last two were supported by the National Science Foundation, with the details of their budgets summarized in the May 1975 report of the National Science Foundation's science curriculum review team; budget data on the last two projects were provided by the respective project originators.

Chemical Educational Materials Study (CHEM Study) was a major science curriculum project for grades 10-12, funded in 1960 and completed in 1972. During its 12-year history, the project received 2.6 million dollars for development and 4.6 million dollars for implementation.

The High School Geography Project (HSGP), also a ten-year project,

received 2.3 million dollars for development and 1.9 million dollars for implementation. The project was completed in 1970.

The *Sociological Resources for the Social Studies* (SRSS) materials took seven years to complete and implement. The project budget was approximately 2.5 million dollars for development and 1.8 million dollars for implementation. Work was completed in 1971.

Comparing Political Experiences (CPE) is a four-year project which will be completed in 1977. To date the project has received 1.3 million dollars for development and 57,000 dollars for implementation.

Economics in Society (EIS) was a three-year project which received approximately 400,000 dollars in grants. Funds were provided during the 1960s, and the materials have been recently published.

The *Unemployment Insurance Curriculum Development Project* (UICDP) is charged with revising a four-week curriculum unit developed in 1971 by the National Council for the Social Studies for the Department of Labor. The current revision calls for an assessment of the present kit, a revision of the kit, field testing of the revised materials, a second revision, and teacher training implementation workshops. The total budget for the 30-month project is approximately 150,000 dollars.

Table 1 summarizes information on these projects and attempts to place a 1976 dollar figure on the costs. For completed projects all budget figures have been increased by 50 percent to more accurately reflect the true cost of those projects if they were financed today.

TABLE 1

Curriculum Project Time and Costs

	Duration of Project	Development Cost	Implementation Cost	Total Cost	1976 Costs
CHEM Study	12 years	$2.6 M	$4.6 M	$7.2 M	$9.3 M
HSGP	10 years	$2.3 M	$1.9 M	$4.2 M	$5.5 M
SRSS	7 years	$2.5 M	$1.8 M	$4.3 M	$5.6 M
CPE	4 years	$1.3 M	$63,000	$1.4 M	$1.5 M*
EIS	3 years	$250,000	$150,000	$400,000	$520,000
UICDP	2.5 years	$100,000	$56,000	$156,000	$156,000

*Increased by only 10% because it is the most recently funded.

The figures above can be viewed as suggesting a reasonable dollar range of funding which might become available to implement some or all of the recom-

mendations from this conference. After considering this range, we established three budget totals which a developer or developers could conceivably receive to accomplish the identified tasks. The three budgets are 150,000 dollars (low), 1 million dollars (medium), and 5 million dollars (high).

We then determined our priorities for developmental work within the constraints of these budgets. Two criteria were used to identify what should be done: 1) projects with the highest priority—those projects deemed most important and necessary, and 2) projects that can be accomplished, given the limited resources available. A discussion of our priority determinations follows.

Low Budget ($150,000) Priorities

If only limited resources are available, it is our judgment that they should be used to 1) develop a measure of economic literacy, 2) investigate current use of available materials, and 3) modify existing materials.

In a low budget, the highest priority task should be defining more clearly the goals and objectives of economic education at various levels and specifying how learner achievement of goals and objectives is to be measured. While varied attempts to define "economic understanding" or "economic literacy" have already been made, the time has come for greater specificity as to what is it that we want school children to be able to do as they progress through the grades and what we want adults to know or to be able to do.

We are not thinking of some minimal level of achievement to be met, but rather of a continuum of knowledge and skills that reflects differing capabilities to deal with economic issues. Presently, a variety of tests are available to assess what students and adults know about economics, but it is not clear that any of these instruments measure what we are trying to do. Nor do we have any standards by which to judge and evaluate the achievement of people at different stages in their education and careers. In conclusion, we must sharpen our own understanding of just what we are attempting to achieve and find some way of assessing this achievement.

The second priority is to investigate current use of presently available materials. Over the past decade much effort and money have gone into curriculum materials development in economic education. These materials range from comprehensive, multilevel curriculum programs whose development cost exceeded one-half million dollars, to single-concept, single-level products produced at minimal cost. Many of the smaller-scale programs originated in the Developmental Economic Education Program (DEEP) sponsored by the Joint Council on Economic Education or were funded by state boards of education, foundations, economic interest groups, and commercial publishers. Despite the large volume of activity and investment of substantial resources in developing curriculum materials, not enough is known about their effectiveness. In addition, no good estimates of current use of these materials exist, and no compari-

sons of the relative effectiveness of these materials have been made.

We believe that substantial effort is required to learn from what has already been done before undertaking the development of new materials. As part of this investigation, we must learn how extensively the materials were or are used, difficulties encountered in installing the materials in schools, and, in many cases, why these materials have not had a more lasting impact on economic education. Another part of this task should be to discover the effectiveness of these materials in enabling users to achieve economic literacy or economic understanding. This information will set the stage for later development work by identifying past mistakes which should be avoided and positive experiences which should be built upon.

The third priority must be given to modifying existing materials. An inventory of these materials must be made, evaluations of these materials studied, their weaknesses identified, and modifications made. Widely used materials should be selected because this indicates a commitment and loyalty of teachers and school districts to the materials. Installation of modified materials is more likely if original materials were widely-used and well-liked. For such efforts to succeed, developers must work closely with commercial publishers from the outset of projects to insure that the suggested modifications are incorporated into materials as subsequent printings occur.

Several kinds of modifications in economic education materials are required. First, erroneous content must be corrected. Second, materials which do not accurately reflect actual conditions must be modified; in particular, subtle sexist, racist, and other biases must be eliminated. Third, content gaps in materials need to be filled, and information should be added to reflect new conditions arising since the original materials were developed.

Modifications which facilitate the infusion of these materials into ongoing curriculum need to be made. Such modifications would reveal how the content of economics can be introduced in the social studies in early grades, how it can be infused into required history and government courses in the high schools, and perhaps how it can be integrated into mathematics and English courses as well. In addition, teacher's guides should explain how the modified materials can help improve economic understanding. Without sufficient explanation of how to incorporate materials into various teaching situations, the new materials are likely to have a minimal impact. If teachers are forced to deal with an unfamiliar subject without guidance, they are likely to ignore newly available changes in the student materials.

Compared to most NSF-sponsored curriculum development work, the three priority areas involve a series of tasks which are well-specified, manageable, and relatively inexpensive to complete. The described work would give focus to economic education, fill important gaps, and correct deficiencies which now exist. Developers should be encouraged to design small-scale projects that accomplish these objectives. Small projects can have a profound impact if the work is applied in appropriate areas. Projects which change already popular materials can produce especially significant leverage.

Medium Budget ($1,000,000) Priorities

If larger amounts of money are available, more ambitious projects can be undertaken. Like a low budget project, a medium budget project should develop a measure of economic literacy and investigate current use of available materials. In addition, the medium budget would allow developers to originate new items rather than modify materials. This would result in the development of new materials to supplement existing curricula but would not involve the development of a new economics curriculum.

The scope of the materials developed in a medium budget project should be limited. As suggested by conference participants, materials should focus on children 12-15 years of age, usually junior high school students. Supplementary materials should be suitable for infusion into traditional junior high social science curricula such as social studies (civics, history), mathematics, and geography. This kind of curriculum development could provide an almost complete unit of materials at the junior high level and still be developed with a minimum budget.

Large Budget ($5,000,000) Priorities

If more substantial funds are available, our priorities would remain the same but the scope of the activities would be broadened. A measure of literacy would be developed, an investigation of materials would be conducted, new materials would be developed, and teacher training sessions would be organized on a regional basis.

As part of this effort, we recommend the undertaking of several competing national curriculum projects. The purpose would not be to encourage the development of comprehensive economics courses, since separate courses have little chance of being implemented. Instead, an infusion approach should be pursued. A variety of materials to be used by teachers at appropriate times in different subject areas could be packaged in kits. These kits would include detailed instructions on how to use these materials and how to integrate them into existing curriculum programs in schools.

To stimulate the development of better materials through competition, two or more infusion projects, independent but having the same overall objectives, should be funded. This approach will not necessarily result in one project being clearly superior to another; rather, each is likely to produce certain superior components. Such an approach should not be interpreted as wasteful. Instead, more good ideas are likely to result from parallel studies, greater choice will be provided for adopters, and ultimately the knowledge and skills acquired by a large number of citizens will be greater than if all effort is concentrated on a single project.

Table (2) summarizes priorities by budget level.

TABLE 2

Priorities with Three Different Budget Levels

	Low Budget	Medium Budget	Large Budget
Develop Measure of Economic Literacy	x	x	x
Evaluate Existing Materails	x	x	x
Modify Existing Materials	x		
Develop New Materials		x	x
Develop Competing Projects			x
Develop Materails for Junior High		x	
Develop Materials for All Levels			x
Fund and Conduct Teacher Training			x

Other Priority Work

If extensive developmental efforts in economic education are undertaken, several other work areas should be given priority. Specifically, three types of studies are needed.

First, economic educators could greatly benefit from a synthesis of pertinent general educational theories and their relevance to economic education. Much of what is known about conceptual development, cognitive and affective learning, learning theory, and other important areas in education research is not widely shared among economic educators. Most professionals in economic education are economists by training. They have not had the time or opportunity to assimilate the existing and newly developing knowledge from educational theory. The time required to achieve professional competence in economics and to acquire some knowledge of economic education leaves practitioners without the breadth of knowledge required to do effective developmental work. A concise synthesis of educational knowledge would be quite useful to potential economics curriculum developers.

Second, it would be desirable to commission a study to survey what has been learned from various precollege curriculum projects sponsored by the National Science Foundation in the natural and social sciences. What did these projects cost? Was there an appropriate distribution of development and installation funds? What experiences from these projects can be applied to developmental work in economic education? These are important questions whose answers could help future developers avoid troublesome bottlenecks. Some of this work has been started by the American Institutes for Research[1] and Hulda Grobman.[2] Both these studies identified specific innovative projects and compared their development and impact. More information about other well-financed projects is needed.

Finally, basic research is needed on how students learn, at what rate they learn, when they are most likely to make different kinds of learning gains, how they form their conceptual images of the economic world, and what influences their feeling of efficacy in the economic process. If this information were available and applied to economic learning, economic education materials could be more effectively tailored to reflect student capabilities and thereby minimize teacher frustration in trying to teach economics to precollege students.

The value of research in these three areas would not be unique to economic education. Instead, such research would benefit educators in every discipline

---

[1] American Institutes for Research, *Product Development Reports: Individualized Case Studies of the Instructional Development of 20 Innovative Educational Products* (Palo Alto, California: American Institutes for Research, 1976).

[2] Hulda Grobman, *Developmental Curriculum Projects: Decision Points and Processes* (Itasca, Illinois: F.E. Peacock Publishers, Inc., 1970).

and should be pursued to improve all development work in precollege education.

VI. SUMMARY

The development work needed in precollege economic education poses a considerable challenge to aspiring developers. Existing gaps have been identified and actions designed to close them suggested. In particular, a measure of economic literacy should be developed, and an assessment of available materials should be conducted. Developmental work should concentrate on supplementing and improving existing curricula. All development activity should be conducted over an extended time period and involve all parts of the development process. If possible, competing grants should be given to curriculum developers to stimulate a healthy competition of ideas and work progress.

We hope these recommendations will be carefully considered and thoughtfully evaluated, but most of all, we hope that resources will be made available to do substantial development work in precollege economic education. The need for development exists and has been clearly identified. Now the opportunity and resources to meet the need must be provided.

VII. CONFERENCE PARTICIPANT RECOMMENDATIONS FOR PRECOLLEGE ECONOMIC EDUCATION

The National Conference on Needed Research and Development in Precollege Economic Education addressed two major questions:

- Is there sufficient and adequate research information available to guide precollege economic education development? If not, what areas should be investigated more completely?
- Is there sufficient and adequate curriculum material available to meet the needs of precollege economic education? If not, what type should be developed?

Throughout the conference, presentors of major papers, respondents, and discussion group participants made recommendations for improving economic education at the precollege level. In Section III we summarized what we as conference directors felt were the six major recommendations emerging from the conference. In this section we present a more detailed listing of the scores of recommendations from which our six summary recommendations were drawn. While the following list may not include every suggestion put forward during the conference, it represents the most comprehensive list we were able to

reconstruct. Recommendations are organized under the broad categories of "research" and "program development."

RESEARCH

Economic Literacy and Knowledge

1. Economic literacy should be clearly defined in an operational, criterion-referenced manner.
2. Factors that contribute to or correlate with low levels of economic understanding should be investigated. Among these factors are home environment, neighborhood, parental knowledge, school curricula, reading level, IQ, personal interest, socioeconomic status, writing ability, and general literacy.
3. The role which economic education can play in strengthening basic educational skills like reading and writing should be investigated.

Measures of Economic Literacy

4. Measures of economic understanding are needed at all grade levels. Those that exist should be updated and improved.
5. Investigators must develop programs to determine long-range impacts of economic education programs. These should give close attention to student attitudes, content knowledge, ethics, and skills.
6. National assessment tests should include more economic content so these tests can be used to measure the impact of economic education programs.
7. National norming information should be collected on standardized tests with breakdowns by age, sex, academic ability, reading levels, socioeconomic background, and geographic area.

How Children Learn

8. Research should be undertaken to explore what forces influence the development of children's economic images. How does social interaction with family, school, peer groups, work groups, and exposure to mass media correlate with the development of an individual's beliefs, attitudes, images, and values about the economy?
9. Research should be conducted to find out how children learn about economic behavior.
10. Research efforts should investigate how economic concepts can be presented to coincide with children's stages of cognitive development.

11. Research efforts should seek to determine at what age level particular economic concepts can be learned with optimal efficiency.

Demand for Economic Education Materials

12. Surveys should be conducted to measure the relative interest of students, teachers, administrators, parents, and school boards in having a strong economic education component in school curricula.

13. Surveys should be conducted to find out the extent to which economics is now being taught at all precollege levels.

14. Curriculum decision makers should be surveyed to determine the most important reasons for adoption decisions on economic education materials.

15. The opportunity costs for schools installing economic education programs should be identified. What, if anything, must be given up to include economic education in the curriculum?

16. Surveys of school and community environment should be conducted to find out why currently available economic education materials are not being used. These might include factors such as teacher unionism, dropping student enrollments, and lower teacher mobility and turnover.

Teacher Preparation and Knowledge

17. The economic background and education of teachers should be surveyed.

18. Research exploring the socialization of teachers should be conducted to determine what training experiences result in high professional commitment to teaching economics.

19. Research should be conducted to investigate the influence of teachers' knowledge of economics on student understanding of the subject.

Program Assessment and Evaluation

20. Economic educators should design careful evaluation procedures as an important part of any curriculum project.

21. Any statistical analysis of research data should use the multiple linear regression analysis form unless substantial justification exists for a departure from the regression model.

22. A variety of evaluation instruments such as observation techniques, interview instruments, and responses to incomplete statements, should be

used to complement written tests for evaluating student performance in economic education curriculum programs.

23. Instruments to measure different educational objectives should be included in new curricular projects. These instruments should diagnose, record on-going performance, and provide feedback to learners in addition to measuring end-of-program achievement.

24. A precollege economic education test bank should be developed.

25. Cost-benefit analyses should be conducted to test the impact of different approaches, methods, and materials used to teach economic education.

26. Research should be conducted to measure presently untested variables such as the impact of effort intensity (quantity and quality of student and teacher action in the learning process).

27. Ongoing evaluations of K-12 social studies materials, secondary economics textbooks, and business education materials should be made to determine the strengths and weaknesses of these materials.

Miscellaneous

28. Greater incentives (professional, personal, and monetary) should be given economic education researchers.

29. Researchers should investigate sex and ethnic bias in economic education tests, materials, and teaching strategies.

30. Researchers should investigate the cumulative experience of students in applying economic analysis.

PROGRAM DEVELOPMENT

Curriculum Development and Evaluation

31. Serious consideration should be given to developing a national model economic curriculum which could be adapted to meet local needs.

32. A series of modest curriculum projects should be undertaken in the next few years. Among the content areas which have not been given sufficient attention and could be profitably included in new curriculum are the following:

    a. Analysis of patterns of and reasons for U.S. income distribution.

    b. Analysis of assumptions and values underlying the U.S. economic system.

c. Analysis of third world economics vis-à-vis developed economies.

d. Problems related to economic discrimination against women and ethnic groups.

e. Problems related to economic power of large institutions such as labor unions, large firms, conglomerates, and multinationals.

f. Problems related to the role of regulatory agencies.

g. Analysis of other economic systems.

h. Problems and controversy within economics about current policy issues such as inflation and unemployment.

i. Problems related to the power or lack of power of the individual actions operating in the economy.

33. Materials should be developed that are appropriate for 12 to 15-year-old students, since little economic education material is available for this age group.

34. New curriculum developments in economic education should:

a. Be interdisciplinary.

b. Involve multiethnic characteristics.

c. Deal with ethical dimensions or inquiry into values.

d. Complement general citizenship goals of education.

35. Great value should be given to the crucial role of varied educational experiences in building a sufficiently elaborate image of concepts and generalizations to enable individuals to effectively participate in economic decision making.

36. Pedagogical characteristics of senior high school materials should be improved by:

a. Developing and testing audiovisual materials that can be used flexibly in a variety of learning situations.

b. Developing and testing simulations that are less complex than those currently available.

c. Developing and testing short curriculum units, perhaps dealing with current economic problems, which actively engage students in the learning process.

37. More attention should be given to individualized learning activities in newly developed curriculum materials.

38. New programs should be developed to involve gifted students in activities requiring them to identify hypotheses and empirically test them.

39. Materials need to be developed with reading levels appropriate to the children who will use them.

40. New economic education materials should be designed to integrate economic content into existing precollege curricula.

41. Supplementary economic education materials which provide a variety of learning experiences about economics should be designed.

42. Extensive revisions of available economic education materials should be carried out to improve their pedagogical components, their usefulness to ethnic minorities, and their classification of value considerations in economic decision making.

43. Any newly developed materials in economic education should follow the guidelines in the Joint Council on Economic Education's Master Curriculum Guide Program, the National Council for the Social Studies Curriculum Guidelines, and the curriculum work of Lawrence Senesh, Suzanne Helburn, and Hilda Taba.

44. Any newly developed materials should be carefully field-tested under controlled conditions, and the test results should be made available to users and potential users of the materials.

45. Economic educators should design procedures and conduct evaluation as important parts of any curriculum project.

46. Evaluation instruments with greater specificity should be used to evaluate new economic education materials. The Curriculum Materials Analysis System developed by the Social Science Education Consortium could serve as an appropriate model.

47. Professionals not previously involved in economic education curriculum development should be sought and involved in any new projects to provide fresh ideas and approaches.

48. In any curriculum development work, greater cooperation between the Joint Council on Economic Education, the American Economic Association, the Social Science Education Consortium, and the National Council for the Social Studies should be developed.

Preservice and Inservice Teacher Economic Education Training

49. Inservice teacher training programs in economic education should be expanded.

50. Inservice teacher education programs should be conducted cooperatively with economists and educators using excellent examples of economic education materials.

51. Inservice training programs should cease to be repair shops of defective teacher training programs and concentrate on giving new directions and growth to established teachers.

52. Teachers should be given special inservice training with new economic education materials to maximize the impact of those materials on student learning.

53. Teacher education programs based on achieving specifically identified teacher competencies should be developed.

54. All teacher training programs should model in their own training those principles of teaching and learning they seek to transmit.

55. All inservice and preservice teacher training programs should be systematically analyzed and the results given widespread dissemination.

56. Programs should be held to improve the economic understanding of college social studies methods teachers.

57. More cooperative working relationships should be developed between economists and teacher trainers in undergraduate economic education.

58. Each state should review and propose minimal certification and graduation requirements for teacher education in economics.

Implementation of Economic Education Curricula

59. Diffusion organizations like the Joint Council on Economic Education should concentrate their implementation programs in "early-adopter" school districts and schools.

60. Great effort should be made to develop and assist people playing linkage and advocate roles in curriculum development and implementation. Special training and informational meetings regarding economic education materials might be conducted with school district curriculum coordinators, assistant superintendents for curriculum, and state social studies coordinators.

CONFERENCE PARTICIPANTS

Elisabeth Allison
James A. Banks
James M. Becker
William Becker
Henry M. Brickell
Elmer U. Clawson
Joseph L. Craycraft
Harris Dante
James E. Davis
George G. Dawson
George L. Fersh
Charles Fishbaugh
Karen Fox
Joyce Frank
Frank Gery
June V. Gilliard
Allen Glenn
Robert A. Gordon
J. Curtis Hall
W. Lee Hansen
Suzanne W. Helburn
James Hodges
Leonid Hurwicz
Myron Joseph
Everett Keach
Jacqueline Kosecoff
Helen Ladd
Brian J. Larkin
Darrell R. Lewis
James Mackey
Gerald Marker
Campbell R. McConnell
Charles Meyers
Jeanette Moon
Irving Morrissett
Dennis O'Toole
Wallace Peterson
Robert Reinke
Phillip Saunders
Leon Schur
Lawrence Senesh
Leonard Silk
Robert F. Smith
John S. Soper
Robert Staaf
S. Stowell Symmes
Elisabeth Vander Putten
George Watson, Jr.
Dennis Weidenaar
Donald R. Wentworth
Edith West

Jacket design: Rick Julliard

This monograph is a summary report on the National Conference on Needed Research and Development in Precollege Economic Education held February 12-14, 1976 in New Orleans, Louisiana. Full proceedings of the conference will be reported in the book *Perspectives on Economic Education* which will be available after January 1, 1977. The book may be ordered from the Joint Council on Economic Education, the National Council for the Social Studies, or the Social Science Education Consortium.